

1 MAIN PERSONAL

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CURRENT POSITION: Postdoc researcher at the Jet Propulsion Laboratory (JPL)-California Institute of Technology (CALTECH), Pasadena U.S.A.

AREAS OF INTEREST: Dust, Planetary Rings, Magnetospheres

2 ACADEMIC BACKGROUND

1989-1996: COLLEGE: Physics; Science Faculty, *National Autonomous University of Mexico* (UNAM)

1999-2001: MASTER DEGREE: Space Physics; Posgrado en Ciencias de la Tierra, *Geophysics Institute* (UNAM).

2001-2004: Ph.D.: Space Physics; Posgrado en Ciencias de la Tierra, *Geophysics Institute* (UNAM)

3 RESEARCH EXPERIENCE

May-Aug 2005 Guest Researcher at the Max Plank Institute for the Solar System research -*Max Planck – Institut für Sonensystemforschung*- in Katlenburg-Lindau, Germany.

2005- 2007 : Postdoc researcher at the *Geophysics Institute*(UNAM)

May-Aug 2007: Guest Researcher at the Max Plank Institute for the Solar System research -*Max Planck – Institut für Sonensystemforschung*- in Katlenburg-Lindau, Germany.

December 2007-present: Postdoc Researcher at the *Jet Propulsion Laboratory* (JPL)-California Institute of Technology (CALTECH) as part of the *CIRS* (Composite Infrared Spectrometer) team, Pasadena U.S.A.

4 TEACHING AND LECTURING

2003-2007: Professor at the *Geophysics Institute* (UNAM) lecturing the following courses in the Graduate Program: Magnetohydrodynamics, Plasma Physics and Space Electrodynamics

1998-2007: Professor at the *Instituto Tecnológico y de Estudios Superiores de Monterrey*, Mexico City Campus (ITESM-CCM) where I lectured and taught 14 different courses of Physics, Mathematics and general Science several times for University science and engineering students of different levels and areas as well as top level high-school students.

5 PUBLICATIONS

5.1 Refereed journals

Flandes, A. L. Spilker, S. Pilorz, C. Leyrat, N. Altobelli and S. Edgington, Thermal properties of Saturn's rings with decreasing solar elevation, to be submitted to GRL.

Flandes, A. H. Krüger, D.P. Hamilton and J.F. Valdés-Galicia, L. Spilker, Magnetic field modulated Dust streams from Jupiter in Interplanetary space, to be submitted to Icarus.

Altobelli, N, L. Spilker, S. Pilorz, C. Leyrat, and S. Edgington, A. Flandes, Thermal phase curves observed in Saturn's main rings by Cassini-CIRS: Detection of an opposition effect?, Geophysical Research Letters, Volume 36, Issue 10, CiteID L10105, DOI: 10.1029/2009GL038163

Flandes, A. and H. Krüger, Solar wind modulation of Jupiter dust stream detection. In Dust in Planetary Systems, Krüger, H. and Graps, A., editors, ESA SP. European Space Agency, 2006.

Krüger, H., Graps, A. L., Hamilton, D. P., Flandes, A., Forsyth, R. J., Horanyi, M. and E. Grün, Ulysses jovian latitude scan of high-velocity dust streams originating from the jovian system (2006). Planetary and Space Science, 54, 919-931.

Maravilla. D. and A. Flandes, Possible sources for the Saturnian dust streams. Geophys. Res. Lett., 32, Lo6202, doi:10.1029/2004GL021842, 2005.

Flandes, A.; Dust escape from Io (2004), Geophys. Res. Lett., 31, Issue 16, CiteIDL16802.

Flandes, A and D. Maravilla, Dust Escape Mechanisms from Io (2004), Advances in Space Research. doi:10.1016/J.asr.2003.09.064.

5.2 Non-Refereed journals

Flandes, A. Misterio en Júpiter, ¿Cómo vés?, Revista de divulgación de la Ciencia de la Universidad Nacional Autónoma de México, CONACyT, Julio 2007, num.104, pp. 15-19.

Flandes, A. Polvo Cósmico, Ciencias, Revista de la Academia Mexicana de Ciencias, CONACyT, Enero-Marzo 2006, vol.57, num.1, pp. 51-55.

6 PARTICIPATION IN CONFERENCES

Brooks, S. M.; Spilker, L. J.; Pilorz, S. H.; Edgington, S. G.; Leyrat, C.; Altobelli, N.; Flandes, A., Cassini CIRS: Lessons Learned from the Prime Mission and Plans for Rings Observations in the Extended Mission, American Geophysical Union, Fall Meeting 2008, abstract P32A-05.

Spilker, L.; Flandes, A.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Ferrari, C., Modeling Saturn Ring Temperature Variations as Solar Elevation Decreases, American Geophysical Union, Fall Meeting 2008, abstract P13A-1302.

Flandes, A.; Spilker, L.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Edgington, S. G., Temperature variation of Saturn's Rings with Solar Elevation, 6265 Planetary rings, 6275 Saturn, 6297 Instruments and techniques, 6299 General or miscellaneous.

Leyrat, C.; Spilker, L. J.; Pilorz, S.; Flandes, A.; Edgington, S., Prediction of Saturn's rings temperatures during the 2009 Equinox, American Geophysical Union, Fall Meeting 2008, abstract P13A-1300.

Leyrat, Cedric; Spilker, L. J.; Ferrari, C.; Pilorz, S. H.; Flandes, A.; CIRS Team, Thermal Inertia of Saturn's Rings Measured by CIRS Cassini, American Astronomical Society, DPS meeting 40, 29.03, Ithaca NY, 09/2008.

Spilker, Linda J.; Flandes, A.; Altobelli, N.; Leyrat, C.; Pilorz, S.; Ferrari, C., Temperature Variations with Changing Solar Elevation in Saturn's Main Rings as Seen by Cassini CIRS, American Astronomical Society, DPS meeting 40, 29.03, Ithaca NY, 09/2008.

Flandes A., J. Spilker , Altobelli, C. Leyrat, S. Pilorz, C. Ferrari, Saturn's main rings' temperature variation with solar elevation, Cassini Rings Working Group science WORKSHOP, ESA, Paris, July 24-25, 2008.

Flandes A., J. Spilker , Altobelli, C. Leyrat, S. Pilorz, C. Ferrari, Saturn's main rings' temperature variation with solar elevation, Saturn after Cassini-Huygens Meeting, Imperial College London, July 28th August 1st, 2008.

Flandes A., J. Spilker , Altobelli, C. Leyrat, S. Pilorz, C. Ferrari, Saturns Main Rings: Temperature versus Solar Elevation Modeling, American Astronomical Society, DPS meeting 40, 29.03, Ithaca NY, 09/2008.

Flandes, A. Harald, K. and Hamilton, D. P., Magnetic Field Modulated Dust Streams From Jupiter in Interplanetary Space, American Geophysical Union, Fall Meeting 2007, abstract P51A-0205, 12/2007.

Flandes, A. and H. Krüger, Solar wind collimation of the Jupiter high velocity dust streams, American Geophysical Union, Fall Meeting 2006, abstract P41C-1307, 12/2006, 2006AGU FM.P41C1307F.

Kempf, Sascha; Krüger, H.; Graps, A. L.; Hamilton, D. P.; Flandes, A.; Grün, E., High-velocity Electromagnetically Interacting Dust Streams at Jupiter: the Ulysses Perspective, American Astronomical Society, DPS meeting 38, 35.03, 09/2006.

Flandes, A. and H. Krüger, The Solar wind and the Jovian dust streams. COSPAR WORLD SPACE CONGRESS 2006 in Beijing, China, July 2006.

Maravilla. D. and A. Flandes, Possible sources for the Saturnian dust streams, American Geophysical Union, Fall Meeting 2005, abstract P11A-0097, Dec. 2005

Flandes, A. and H. Krüger, CIR modulation of Jupiter dust stream detection. Dust in Planetary Systems, Proceedings of the conference held September 26-28, 2005 in Kaua'i, Hawaii. LPI Contribution No. 1280.,

p.47. 09/2005. Poster presentation.

Flandes, A and D. Maravilla; Dust Escape Mechanisms from Io, COSPAR WORLD SPACE CONGRESS 2002 in Houston Texas in October 2002.

7 GRANTS

During my studies and as postdoc researcher I have been supported by the following:

2002-2004: National Council for Science and Technology, Mexico (Consejo Nacional para la Ciencia y la Tecnología, CONACyT).

2003: Max Plank Institute für Kernphysik (MPIK) on behalf of Professor Eberhard Grün.

2005: Max Plank Institute for the Solar System Research General Office for the Science Researchers Support (Dirección General de Apoyo para los Académicos, DGAPA)

2005: Coordinación para la Investigación Científica, UNAM.

2006: General Office for the Science Researchers Support (Dirección General de Apoyo para los Académicos, DGAPA) UNAM, México

2007: Max Plank Institute for the Solar System Research (MPS) on behalf of Professor Harald Krüger .

2007: General Office for the Science Researcher's Support (Dirección General de Apoyo para los Académicos, DGAPA).

2008: Oak Ridge associated Universities (ORAU-NASA)